### 4. Diagnostics for best model

##### Equation for final model

##### Model assumptions

There are four main assumptions in regression models

1. The residuals (’s) are iid (independent and identically distributed), i.e., .
2. The residuals are normally distributed.
3. The residuals have a mean of 0, i.e., , alternatively this implies that
4. The residuals are homoscedastic and have constant variance, i.e.,

These can summarised in a single statement as follows

##### Assessing model diagnostics

# The model\_diagnostics function from DImodelsVis can be used for assessing the model assumptions for a DImodel  
# The model parameter accepts a fitted regression model object  
model\_diagnostics(model = mod4)